

## IN THE SPECIFICATION

Please amend the specification as follows.

On Page 1 after the title delete the first paragraph and substitute therefor the following:

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### BACKGROUND OF THE INVENTION

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The invention relates to a process for production of an artificial tooth substitute which can be fitted on at least one preprepared dental stump, where taking into account the shrinkage, on the basis of a model, a fully ceramic skeletal structure of biologically compatible material is calculated, produced from a blank by material removal, dense-sintered and a coating material applied for individualisation. The invention also concerns a blank of porous ceramic for performance of the process.

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Page 3, delete the first full paragraph and substitute therefor the following:

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### SUMMARY OF THE INVENTION

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The task in relation to the process is solved according to the invention in that the three-dimensional outer and inner surface of a positive model of the skeletal

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C structure for tooth crowns and/or tooth bridges are scanned and digitised, the data enlarged linearly in all directions by an enlargement factor  $f$  compensating precisely for the sinter shrinkage, transferred to the control electronics of at least one processing machine for machining the blank of porous ceramic and suitable tool paths derived from this, temporally decoupled from digitisation, by means of control commands for tools, material is removed from a blank until the enlarged design form of a positive model is achieved which is then dense-sintered to the skeletal structure with precise end dimensions, and then individualised by facing with a coating material of porcelain or plastic. Special and further design forms of the process according to the invention are the subject of dependent claims.

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Page 3, after the first full paragraph insert the following section:

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#### BRIEF DESCRIPTION OF THE DRAWINGS

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C Using the design examples shown in the drawing which are the subject of dependent patent claims, the invention is explained in more detail. Diagrammatically these show:  
Fig. 1 a longitudinal section through a natural dental stump with an artificial tooth crown,

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- Fig. 2 an enlarged detail of area A according to Fig. 1,  
Fig. 3 a longitudinal section through two tooth stumps  
with a three-part tooth bridge,  
Fig. 4 an occlusal view of the skeletal structure of a  
tooth bridge,  
Fig. 5 a cavital view of the skeletal structure of a  
tooth bridge,  
Fig. 6 the clamping situation of a skeletal structure  
model for digitisation,  
Fig. 7 the clamping situation for an unmachined blank,  
Fig. 8 the clamping situation before separation of a  
produced blank, and  
Fig. 9 the clamping situation for digitising a skeletal  
structure model of a tooth crown.

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Delete the paragraph bridging Pages 3 and 4 and  
substitute the following paragraph:

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#### DETAILED DESCRIPTION

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Starting from a dental preparation of the dental  
stump, a mould is made which gives a negative model of the  
situation in the patient's mouth, in particular the surface  
of the dental stump or stumps, the approximal surfaces of  
the neighbouring teeth and the counter-bite. Proceeding

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from this moulding, a positive model is produced, usually from plaster. On the positive model of the situation is applied a spacer lacquer which takes into account a gap between the surface of the skeletal structure produced on the basis of the model and the dental stump. Then on the said positive model of the situation in the patient's mouth can be produced a model for the skeletal structure of wax or plastic. This procedure is known and is used in dental technical practice for production of metal skeletal structures for tooth crowns and/or bridges.

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Page 10, delete lines 26-37.

Page 11, delete lines 1-9.